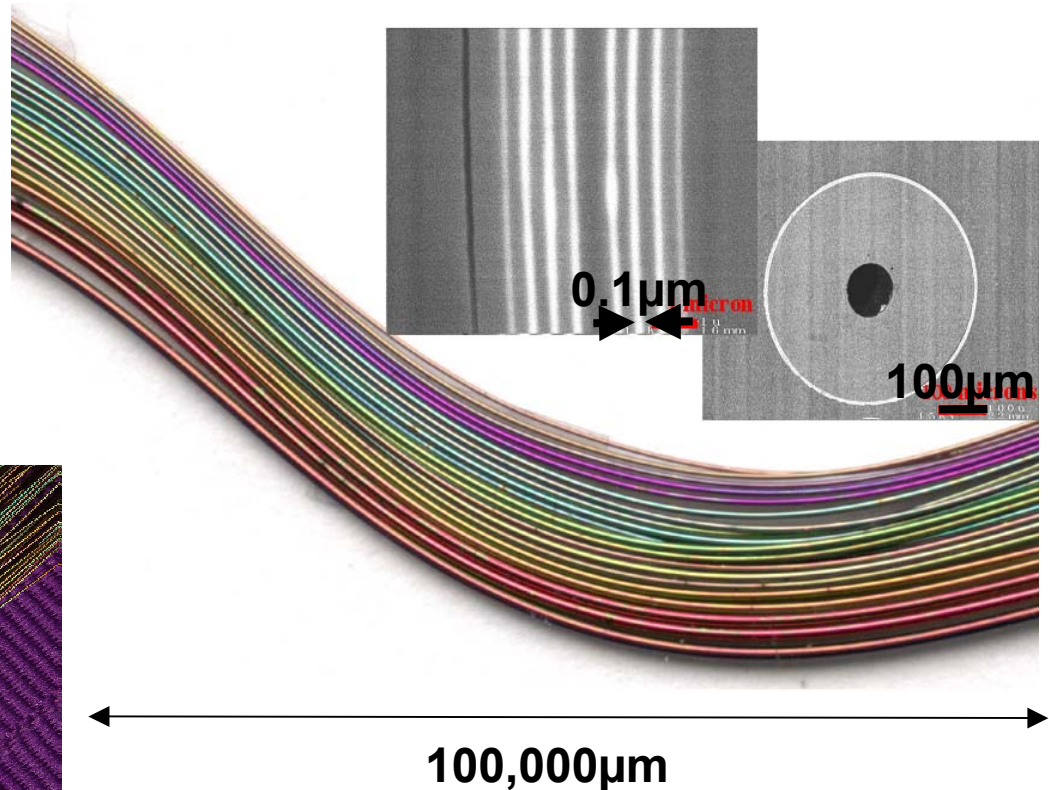
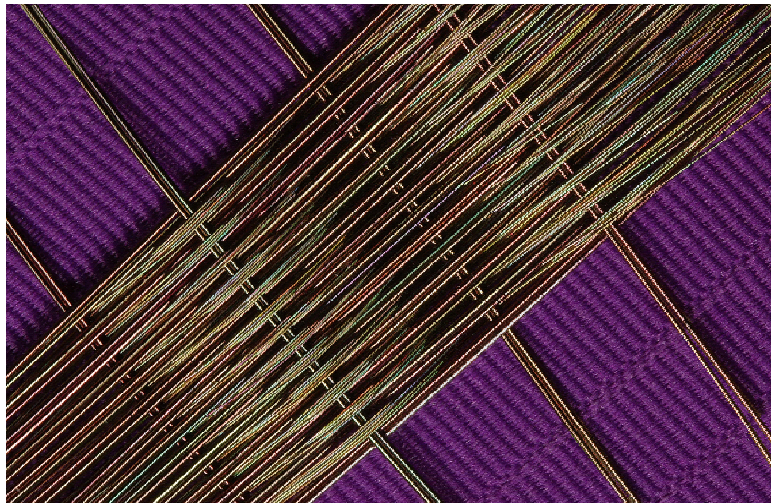


Optical Textiles: Cylindrical Photonic Bandgap Fibers

- Combining semi-conducting glass and insulating polymers to form photonic bandgap *textile fibers*.
- Macro-scale processing technique leads to nano-scale control *



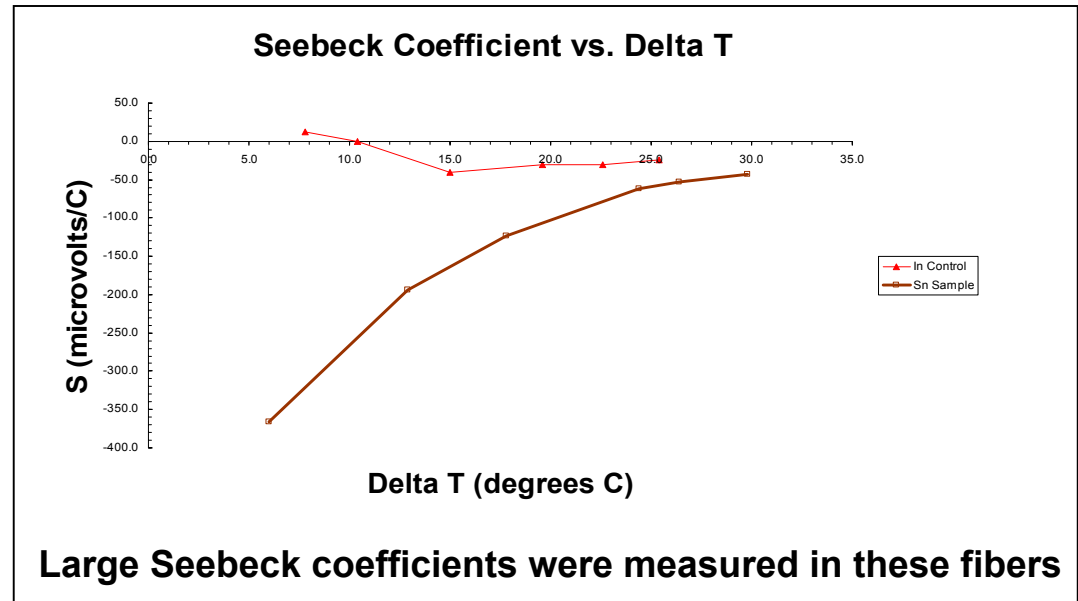
* Length of fiber divided by layer thickness = distance between the earth and the moon divided by the thickness of your finger

Educational Component: Fibers with High Seebeck Coefficients



- The thermoelectric power of the fibers is measured by applying a temperature gradient and measuring the voltage between the electrodes
- The temperature gradient is measured with an infrared camera

Impact: This research may enable power generating textile fibers



This work was carried out by Jason Cutrera as part of the 2003 MRSEC REU program

